

triad of unit vectors, dot or scalar product, resultant of distributed force system, noncoplanar force systems, slope of the Shear diagram, and slope of the Moment diagram. You'll also get coverage of the laws of friction, rolling resistance, the centroid of a continuous quantity, and the theorems of Pappus and Guldinus. Appropriate for the following courses: Engineering Mechanics; Introduction to Mechanics; Statics; Mechanical Engineering; Engineer-in-Training Review. Features: Hundreds of solved problems Support for all the major textbooks for static courses Topics include: Vectors, Forces, Coplanar Force Systems, Noncoplanar Force Systems, Equilibrium of Coplanar Force Systems, Equilibrium of Noncoplanar Force Systems, Trusses and Cables, Forces in Beams, Friction, First Moments, Centroids, and Moments of Inertia, Virtual Work Learn Chemical Reaction Engineering through Reasoning, Not Memorization Essentials of Chemical Reaction Engineering is the complete, modern introduction to chemical reaction engineering for today's undergraduate students. Starting from the strengths of his classic Elements of Chemical Reaction Engineering, Fourth Edition, in this volume H. Scott Fogler added new material and distilled the essentials for undergraduate students. Fogler's unique way of presenting the material helps students gain a deep, intuitive understanding of the field's essentials through reasoning, using a CRE algorithm, not memorization. He especially focuses on important new energy and safety issues, ranging from solar and biomass applications to the avoidance of runaway reactions. Thoroughly classroom tested, this text reflects feedback from hundreds of students at the University of Michigan and other leading universities. It also provides new resources to help students discover how reactors behave in diverse situations-including many realistic, interactive simulations on DVD-ROM. New Coverage Includes Greater emphasis on safety: following the recommendations of the Chemical Safety Board (CSB), discussion of crucial safety topics, including ammonium nitrate CSTR explosions, case studies of the nitroaniline explosion, and the T2 Laboratories batch reactor runaway Solar energy conversions: chemical, thermal, and catalytic water spilling Algae production for biomass Steady-state nonisothermal reactor design: flow reactors with heat exchange Unsteady-state nonisothermal reactor design with case studies of reactor explosions About the DVD-ROM The DVD contains six additional, graduate-level chapters covering catalyst decay, external diffusion effects on heterogeneous reactions, diffusion and reaction, distribution of residence times for reactors, models for non-ideal reactors, and radial and axial temperature variations in tubular reactions. Extensive additional DVD resources include Summary notes, Web modules, additional examples, derivations, audio commentary, and self-tests Interactive computer games that review and apply important chapter concepts Innovative "Living Example Problems" with Polymath code that can be loaded directly from the DVD so students can play with the solution to get an innate feeling of how reactors operate A 15-day trial of Polymath(tm) is included, along with a link to the Fogler Polymath site A complete, new AspenTech tutorial, and four complete example problems Visual Encyclopedia of Equipment, Reactor Lab, and other intuitive tools More than 500 PowerPoint slides of lecture notes Additional updates, applications, and information are available at www.umich.edu/~essen and www.essentialsofcre.com.

Schaum's Outlines present all the essential course information in an easy-to-follow, topic-by-topic format. You also get hundreds of examples, solved problems, and practice exercises to test your skills.

School Shop

Schaum's Outline of Electric Circuits, seventh edition

The Technology Teacher

RF and Microwave Circuit Design

Schaum's Outline of Engineering Mechanics: Statics

Schaum's Outline of Engineering Mechanics: Statics, Seventh Edition

RF and Microwave Circuit Design Provides up-to-date coverage of the fundamentals of high-frequency microwave technology, written by two leading voices in the field RF and Microwave Circuit Design: Theory and Applications is an authoritative, highly practical introduction to basic RF and microwave circuits. With an emphasis on real-world examples, the text explains how distributed circuits using microstrip and other planar transmission lines can be designed and fabricated for use in modern high-frequency passive and active circuits and sub-systems. The authors provide clear and accurate guidance on each essential aspect of circuit design, from the theory of transmission lines to the passive and active circuits that form the basis of modern high-frequency circuits and sub-systems. Assuming a basic grasp of electronic concepts, the book is organized around first principles and includes an extensive set of worked examples to guide student readers with no prior grounding in the subject of high-frequency microwave technology. Throughout the text, detailed coverage of practical design using distributed circuits demonstrates the influence of modern fabrication processes. Filling a significant gap in literature by addressing RF and microwave circuit design with a central theme of planar distributed circuits, this textbook: Provides comprehensive discussion of the foundational concepts of RF and microwave transmission lines introduced through an exploration of wave propagation along a typical transmission line Describes fabrication processes for RF and microwave circuits, including etched, thick-film, and thin-film RF circuits Covers the Smith Chart and its application in circuit design, S-parameters, Mason's non-touching loop rule, transducer power gain, and stability Discusses the influence of noise in high-frequency circuits and low-noise amplifier design Features an introduction to the design of high-frequency planar antennas Contains supporting chapters on fabrication, circuit parameters, and measurements Includes access to a companion website with PowerPoint slides for instructors, as well as supplementary resources Perfect for senior undergraduate students and first-year graduate students in electrical engineering courses, RF and Microwave Circuit Design: Theory and Applications will also earn a place in the libraries of RF and microwave professionals looking for a useful reference to refresh their understanding of fundamental concepts in the field.

This book constitutes the refereed proceedings of the 16th European Conference on Evolutionary Computation in Combinatorial Optimization, EvoCOP 2016, held in Porto, Portugal, in March/April 2016, co-located with the Evo*2015 events EuroGP, EvoMUSART and EvoApplications. The 17 revised full papers presented were carefully reviewed and selected from 44 submissions. The papers cover methodology, applications and theoretical studies. The methods included evolutionary and memetic algorithms, variable neighborhood search, particle swarm optimization, hyperheuristics, mat-heuristic and other adaptive approaches. Applications included both traditional domains, such as graph coloring, vehicle routing, the longest common subsequence problem, the quadratic assignment problem; and new(er) domains such as the traveling thief problem, web service location, and finding short addition chains. The theoretical studies involved fitness landscape analysis, local search and recombination operator analysis, and the big valley search space hypothesis. The consideration of multiple objectives, dynamic and noisy environments was also present in a number of articles.

Schaum's Outline of Electric Circuits

Engineering Mechanics 1

Schaum's Outline of Geometry, 4ed

Accounting, Principles and Practices

Supplementary Problems to Accompany Accounting, Principles and Practices